SURVIVAL INSTRUCTIONS

Immediate action in a survival situation

- Check yourself and your companions.
- Give first aid treatment if required.
- Put on appropriate clothing.
- Consolidate survival and other useful items.
- Seek or construct temporary shelter. Protect yourself.
- Make fire and prepare location devices.
- Relax, formulate a plan and read on.

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You should read these instructions before you embark on any activity which may force you into a Survival Situation.

THE PLAN

Do you need to be rescued or do you definitely believe you can return to safety? If you are in any doubt, your rationale must not be influenced by factors irrelevant to your circumstances though you must consider all options. Think logically. If you are in a group, discuss the matter openly (unless there are very young people in the party). Listen to everyone's views and gain information. Establish facts. Make a joint decision, then stick to it. Keep the group together.

You must be positive, be sure and realistic, about which is the safest option to adopt. If you believe you have to be rescued then you have to survive until this is achieved. Estimate how long it may take before the alarm is raised and the search is organised. Consider the difficulties the rescuers will encounter, the time it may take to reach your locality, and the time it will take to find you. Triple the total of this time. You must try to shorten this time by assisting your rescuers (see location) and/or trying to pass a message onto them (see movement). You must prepare yourself to survive this length of time. The will to survive is inbred in everyone. With certain knowledge and equipment and the will to survive, YOU WILL LIVE.

The essential parameters for survival are:-

First Aid - Protection - Location -Water - Fire - Food

Your circumstances will determine the order of these priorities.

FIRST AID

See instructions in First Aid Kit.

Once you have given First Aid you must weigh the seriousness of any injury against the risk of going for help.

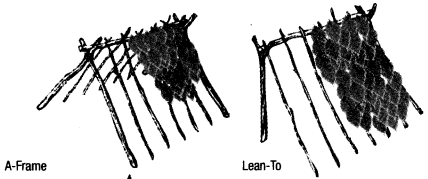
PROTECTION

Protection from the cold is vital for survival.

CLOTHES - Put on appropriate clothing before you get too cold. Layers of clothing trapping air are warmer than one thick garment. Headgear is important. If you do not have headgear, improvise. Keep dry as wet clothing loses up to 90% of its insulating properties. Avoid sweating. Keep out of wind as the chilling factor of wind reduces thermal retention. Huddle together, or use the same sleeping bag. Watch out for signs of hypothermia; These are uncontrolled shivering followed by drowsiness. Watch for frostbite, small patches of white or cream coloured frozen skin. Wrap around with foil blanket or use polythene sleeping bag, etc.

SHELTER - Seek temporary shelter in liferaft, parachute, packing material, trees, walls, natural hollows, and if safe, wreckage, caves, rock overhangs, etc. Do not waste time constructing a temporary shelter if nature already provides one. A good shelter will help you to sleep and will protect you from the elements. Be wary of floods, tides, rockfalls or avalanche areas single trees which may attract lightening. Hillsides are usually warmer but windier than valleys. Site the shelter near fresh water, sources of building materials and fire wood. Use the natural materials around you. Reserve the materials you have like foil blankets ponchos, etc., for wrapping around your own body. Keep the shelter simple. Plan it well, ensure you are well insulated from the ground, use dried leaves, grass, ferns, etc. In very hot conditions, site shelter about or below ground level. Use plastic sacks, large boxes, leafy branches, parachutes, turf, tree bark or bunches of grass to water-proof the frame. Cut wood from frame with Wire Saw or Machete.

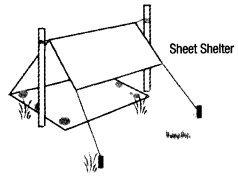
Construct your shelter so the entrance is away from the prevailing wind. If this is strong, build wind shields to cover it. When you are confronted with large barren areas of grass-land and very few trees, it is possible to construct a shelter by cutting bricks out of turf and building your shelter as shown below. Build your shelter around the natural or man-made (a wall) structures.



A-Frame

Lean-To

Tree Pit
Dig below a good tree for shelter



Sheet Shelter

LOCATION & SIGNALLING

You should always leave an accurate plan of your movements with a responsible person. If you have taken this precaution, have you deviated from this plan? If so, can you return to it safely? Where do you think the rescuers will start to search? Try to put yourself in the position of such rescuers. Decide where they will come from. How they will come? What difficulties will they experience? What will they be looking for? Try to meet them mentally, if not physically, half way. Activate and check operation of any radio distress beacon. Place it as high above the ground as possible. Protect from sunlight and shield from obstacles. If it is safe to stay where you are then do. If you have a vehicle, stay with it.

LIGHT - if you have pyrotechnics with you use them. Understand how to use them and keep them ready for instant use. Red flare is for distress. White flare acknowledges or warns. six flashes of a torch in one minute then one minute's pause before repeating indicates distress. The reply is three flashes.

MORSE CODE:-

A.- B-... C-.-. D-.. E. F..-. G--. H.... I.. J.--- K-.- L.-..
M-- N-. O--- p.--. Q--.- R.-. S... T- U ..- V...- W.-- X-..-
Y -.-- Z--..
1.---- 2 ..--- 3...-- 4....- 5..... 6-.... 7--... 8---.. 9----. 0-----

Any reflective shiny surface will reflect the sun like a heliograph onto a target. Use your hand to signal onto the target. With practice especially when the sun is high, you can reflect around 75% of the horizon. Sweep the horizon if no target is in sight. The glow from a torch or lighted candle in a tent or against a covering will be visible at night. Remember however that searchers will stop looking for you after dusk. STAY PUT if it is safe. People die heading into the unknown. If you have a vehicle do not move far from it.

FIRE

Fires offer comfort, protection, heat and light.

Choice of fire locations is important. You should have it close to your shelter and out of the wind. Ensure that any fire you make is safe and does not get out of control.

Before you start, gather plenty of fuel. Once you get a flame, it is essential to keep it burning. Look around for dry wood. Dry twigs and branches work best.

Once you have stockpiled wood, you will need tinder to get the fire going. Materials such as cotton balls, tampons, dry moss or grass are ideal. You can also use rags soaked in flammable liquids such as petrol.

Lighting a small fire is easier than a big fire. Start small.

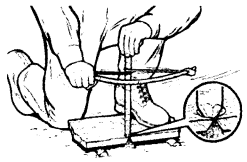
Prepare single fires in readiness for quick ignition if potential rescuers are near. If possible, set up three fires in a triangle spaced 100 feet apart. Ensure fire will be kept dry at all times, and if lit, will not spread out of control. To ensure large logs are dry, light a small fire first, then extinguish. Then reconstruct a small fire using very dry timber. Protect from rain with a shelter until fires are required. Try to contrast with background. On clear days burn vegetation for white smoke. On overcast days burn oil or rubber for black smoke. By night you need large bright flames. For warmth many small fires give more heat than one large one. Conserve fuel wherever possible, make a star fire (the ends of large logs meet in the fire) or make afire reflector to reflect heat of fire into shelter.

Star Fire

Yukon Fire

Signal Fire

The Yukon Fire. Very effective fire especially in wet weather. Consider it if materials and time allows, and you are in an area for more than 48hrs. Construct using rocks and stones, cemented with mud form river edge, cover above half of the chimney with a large flat rock. Leave a hole in the side as a fuel and air intake. But in one side, a metal can/ tin as an oven. Ensure that food is not in direct contact with the metal as it will burn.



Drill and Bow

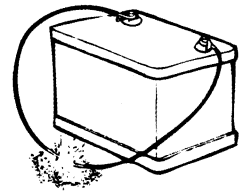
Fire Saw

FIRE MAKING - Look after your matches, if you start a fire. One match, one fire. If no matches, chemicals, magnifying glass or spectacles. or;

A) Blow and Drill-The two hardness.

B) Fire Thong - split log and hold open with wedge thong, (about 2' in length) and work back and forth.

Gather fire making fuel carefully before you try making a fire. Be sure to gather as much fire material as possible to keep your flames going.



Car Battery

GROUND TO AIR SIGNALS Improvise by breaking terrain to contrast with background. Make a large circle at least 10' diameter. Use stones, broken vegetation, trampled vegetation or digging, etc. Try to form signals shown below if specific immediate help needed. Lay out on ground, or hand from trees, any bright coloured wreckage, clothing, blankets, etc., if not required. Any search aircraft will acknowledge sighting you by dipping its wing, turning on a green light or circling your position. Ground to air signals must be as large as possible:-

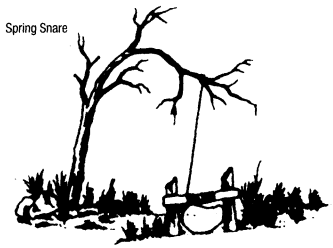
V	X	→	Y	N
Require Assistance	Require Medical Assistance	Go/Going This Way	Yes	No

Or spell out 'S.O.S.' If in a liferaft or lifeboat at sea, try to construct a radar reflector by erecting metal surfaces, placed at acute angles to themselves, as high above sea level as possible. If you have light or fire keep them close at hand for signalling. Shiny surfaces can reflect this to signal or direct.

Sound - Visual signals are generally more effective than sound. Use your whistle to attract attention even if no one is sight. Sound, especially at dusk, or in fog, or in an afforested area can travel for miles. Give six loud blasts in one minute followed by a minute's pause. The reply will be three blasts. If you do not have a whistle or cannot make one, avoid straining your voice by calling, or by whistling, but not shouting.

FOOD

If water is short avoid eating especially salty foods or proteins. Try to eat only carbohydrates. Ensure you have water supply before you have a food supply. If it walks, crawls, creeps, flies or swims - it can be eaten. Avoid, however, oddly shaped fish, especially those with spines or horns or box shaped bodies. Seaweed, except thread-like seaweeds, are edible. Wherever possible always try to cook fish. Use the thin inner strand of nylon cord to use as a fishing trace. If you cannot obtain grubs or worms, etc. then most bright coloured objects like silver foil, coloured cloth, etc, will be effective as bait. The best time to fish on the coast is a little after high water. In fresh water, in the early evening. You can drive stakes into the bed (or on a beach) to make a fish trap. If a net is available stretch it across a small gap in the stakes. To catch land animals, remember Mangle, Dangle, Tangle or strangle. Use wire, nylon cord or wire saw to make a snare. Find game trails. Cover snare in animals dung. Secure firmly to stake. Disturb area as little as possible. A rabbit snare should be 4 1/2 (first) 3" (four fingers) high off ground. Bait the snare or have multiple snares to make it more efficient. Check snare regularly.



Plants are a poor source of calories but good for balanced, varied diet. Many wild plants are poisonous. Any unknown you must test. One man should test one plant at a time. Only take fresh young specimens that do not smell badly. Avoid milky sap. Place one clean small portion on lips for a few minutes. If no ill effect, stinging, burning sensation, bitter taste, place under tongue. If still ok, chew and spit it out. Next swallow a small piece. Wait for 2 hours. If no ill effect eat a larger piece and wait one hour. Then initially eat in moderation. This test does not apply to fungi. Always cook leaves with prickly hair e.g. nettles. Because birds or animals eat a plant, it does not mean it is fit for humans. Useful common leaves to eat are those of dandelion, sorrel, comfre and nettles (must boil). Nettle root, if peeled is good for diarrhoea and dysentery, and ground dry dandelion root can be used as coffee. For tree bourne fruit and nuts that are to high to reach, tie a rope to each end of wire saw. Throw one free end of rope over high branch to cut it off.

FUNGI - There are several species of deadly and poisonous fungi, whilst many other species are better in food value than other plants. But if in doubt, don't eat fungi. The only way to tell which fungi are edible and which are not is by positive identification. However, no poisonous fungi will be found growing above waist height.

WATER

Without water, survival time, numbered in days, may be as follows:-

Max daily temperature (OF)	50-70	80	90	100	110	120
Resting in shade only (Days)	12	$10^{1/2}$	$8^{1/2}$	6	$3^{1/2}$	$2^{1/2}$
Walking at night rest by day	9	$8^{1/2}$	6	$3^{1/2}$	$2^{1/2}$	1

When water is in short supply, drink nothing for the first 48 hours. Then observe the amount of urine you pass, and drink the same quantity of fresh water, plus one extra pint per day. An active man in a temperate climate needs $2^{1/2}$ litres per day. If water is in very short supply drink to off-set the headache stage of dehydration. Sea sick or ill people should have twice the rationed amount. Avoid sweating by moving slowly and avoiding hot sun shine by moving at night. Cool your clothes by wetting with sea water, urine or waste water. Cover exposed parts of the body especially the head. Build a shelter from the suns rays. Never drink urine, sea water or milky plant juices (except coconut milk) . Drink only a planned amount at planned intervals. Try to drink only in the cool of evening. Do not drink when thirsty. Use plastic tube to administer poor tasting, 'fresh water, by rectal infusion. Never wait until you are without water before you start to collect and store it.

SOURCES OF WATER - Follow game trails, animals. Insects (especially bees) and birds (especially grain eaters) to water. Look for any luscious vegetation underground water maybe available in valley, dry stream beds, gullies. at the inter section of different rocks, or animal diggings.

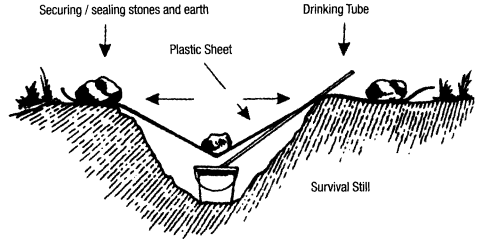
DEW TRAP - dig trough, insulate foil blanket from the heat off ground with

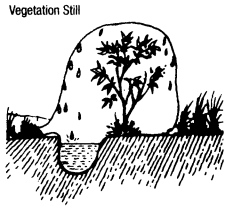
grass, twigs etc. Try to darken top surface of the blanket to radiate heat. Place foil blanket over area, but raise a few inches off the ground with stones or sticks at corners. Place small stones in centre of foil. Water should condense in the early morning on the underside of the trap and drip into the receptacle.

PURIFICATION - Drinking unclean or contaminated water which makes us ill is worse than drinking no water. Water can undergo basic filtration using a fine cloth such as a handkerchief or an item of clothing (shirt / t-shirt).

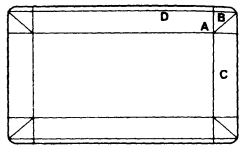
Water from arctic ice, a still or dew trap will not need purifying. Always purify all other water wherever possible. Either use the Osmoration kit, or first filter though shirt, cloth or sand. Then purify with water purification tablets boiling for 5 minutes or adding iodine or potassium permanganate. Add charcoal from fire to remove unpleasant tastes or administer by rectal infusion. Use Osmoration of de-salting kit to purify sea water.

Freezing does not purify water. Use container of a protective carrying type to store water. Dig down and use a plastic tube to suck up water from plants. Certain trees, Alder, Aspen, Birch, Maple and Cactus can give water by cutting a 'V' in the bark then inserting a downward and outward sloping peg or nail. Allow the water to drip into a receptacle. Prepare in advance, rain traps using





To make a waterproof container: Fold this sheet of paper as shown below. Fold side A up. Turn area B inside side C to form a corner. Turn down flap D to lock container.



leaves, sail cloth or the foil blanket. Tie a cloth around the trunk of a tree and knot it and tie a stick to reinforce tree ends, so that it is sloping downward and out ward. The rain water will run down the tree into the cloth and will drip off the tip of the stick, and will fall into a receptacle on the floor. At sea remove the salt crust before it rains. In winter, melt snow and crushed ice before drinking. Ice is a better source of water than snow. All blue sea ice is free of salt. Construct a solar still.

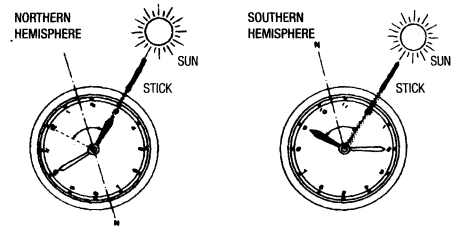
MOVEMENT

RIVER CROSSING - Remove trousers but not boots. Have a solid stick you can use as an extra point of contact. Try to secure person by rope to a bank. Cross rivers at the slowest, widest point and not at bends. Wade though rather than jump across stones. Avoid crossing bogs or marshy areas.

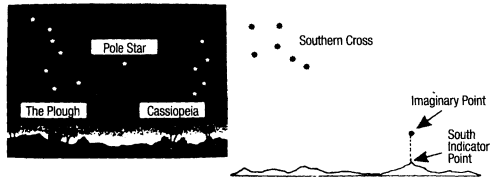
Contouring around a hill is usually easier and quicker than going straight over its crest by the shortest route. Never walk up or down hill at night. Never follow a river or stream down hill at night, as it usually takes the shortest, steepest course. When at see, large fleecy clouds form, especially later in the day, over land.

NAVIGATION - Knowledge of directions is invaluable if you choose to move. You may choose to move if you feel no one is looking for you or your location is not safe. There are many ways of finding direction:-

1. Sun - Rises in the East sets in the West.



2. Use your watch - as a compass. Point your hand at the sun. The line dissecting angle between the hour hand and 12 o'clock, is the North South line.



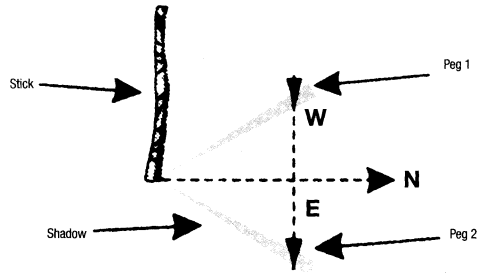
3. Stars - The North or Pole Star is always reliable *(see above)*

4. Star Movement

Direction of the star's movement	You are facing
To the right	South
To the left	North
Rising	East
Descending	West

5. Vegetation Vegetation is usually more prolific on the sunny side (except mosses) i.e. on the southern side in the northern hemisphere. In the northern hemisphere as a very rough estimate. Willows, Alders and poplar trees tend to lean towards the south and coniferous trees are more bushy on their south facing side.

6. Shadow method of detection. Place stick in ground. Mark where shadow falls in the morning, peg 1) .In the afternoon, mark where the shadow falls, peg 2). A line through these 2 pegs is a West-East line, and a line bisecting this W-E line from the stick points true north.



DISCLAIMER & WARNING

USE OF OUR SURVIVAL GUIDE AND EQUIPMENT AT YOUR OWN RISK.

Survival situations are dangerous and may result in injury or death even when following the techniques specified in this guide.

Every survival situation can present unpredictable hazards and risks. Therefore, it is your responsibility to prepare, gather information and gain relevant training before exposing yourself to these dangers. You, the user, assume all risk when following the instructions in this guide or when using our products.

The BCB International Ltd Survival Guide cannot guarantee your survival or prevent injuries. BCB International Ltd is not responsible for any injury, death or consequences of any actions taken based on the information provided in this guide.

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